

1 **WHAT IS CLAIMED IS:**

- 2 1. An epidural catheter dispenser system, the system comprising:  
3 at least one sidewall and having a proximal end and a distal end, the distal end  
4 being connected to a distal end piece, thereby defining an inner cavity;  
5 wherein the proximal end defines a loading aperture such that a catheter may be  
6 loaded or adjusted into the inner cavity through the loading aperture; and  
7 wherein the distal end piece defines a dispensing aperture such that a loaded  
8 catheter in the inner cavity can be extracted from the inner cavity through  
9 the dispensing aperture.
- 10
- 11 2. The epidural catheter dispenser system of claim 1 wherein the sidewall's proximal  
12 end is further connected to a proximal end piece, thereby further defining an inner cavity,  
13 wherein the proximal end piece defines a loading aperture such that a catheter  
14 may be loaded or adjusted into the inner cavity through the loading  
15 aperture.
- 16
- 17 3. The system of claim 1 wherein the dispenser can be no larger than a human hand.
- 18
- 19 4. The system of claim 2 wherein the dispenser can be no larger than a human hand.
- 20
- 21 5. The system of claim 1, 2, 3 or 4 wherein the dispenser is made of a semi-rigid  
22 material.
- 23
- 24 6. The system of claim 1, 2, 3 or 4 wherein the dispenser is positioned in either hand  
25 of a user such that the distal end is directed toward the user's thumb and index finger so  
26 that the catheter contained within the inner cavity may be completely extracted through  
27 the dispensing aperture;
- 28
- 29 7. The system of claim 1, 2, 3 or 4 wherein the sidewall takes the shape of a cone.
- 30

1 8. The system of claim 1, 2, 3 or 4 wherein the sidewall takes the shape of a  
2 cylinder.

3  
4 9. The system of claim 1, 2, 3 or 4 wherein the sidewall takes the shape of a  
5 polyhedron.

6  
7 10. The system of claim 1, 2, 3 or 4 wherein the inner cavity entirely confines the  
8 catheter except through the dispensing aperture.

9  
10 11. The method of preventing contamination of an epidural catheter by loading a  
11 catheter in an epidural catheter dispenser system, the system comprising:

12 at least one sidewall, the sidewall being conical, cylindrical or polyhedral and  
13 having a proximal end and a distal end, the distal end being connected to a  
14 distal end piece, thereby defining an inner cavity;

15 wherein the proximal end defines a loading aperture such that a catheter may be  
16 loaded or adjusted into the inner cavity through the loading aperture, and

17 wherein the distal end piece defines a dispensing aperture such that a loaded  
18 catheter in the inner cavity can be extracted from the inner cavity through  
19 the dispensing aperture.

20  
21 12. The method of claim 11 wherein the proximal end of the epidural catheter  
22 dispenser system's sidewall is connected to a proximal end piece, thereby further  
23 defining an inner cavity,

24 wherein the proximal end piece defines a loading aperture such that a catheter  
25 may be loaded or adjusted into the inner cavity through the loading  
26 aperture.

27  
28 13. The method of claim 11 wherein the epidural catheter dispenser system is no  
29 larger than the human hand.

1 14. The method of claim 12 wherein the epidural catheter dispenser system is no  
2 larger than the human hand.

3  
4 15. The method of claim 11, 12, 13 or 14 wherein the epidural catheter dispenser  
5 system is made of a semi-rigid material.

6  
7 16. The method of claim 11 or 12 wherein the loading of the catheter into the epidural  
8 dispenser system is performed manually.

9  
10 17. The method of claim 11 or 12 wherein the loading of the catheter into the epidural  
11 dispenser system is performed mechanically.

12  
13 18. The method of claim 11 or 12 wherein the loading of the catheter into the epidural  
14 dispenser system is performed through an automated process.

15  
16 19. The method of making an epidural catheter dispensing system comprising the  
17 steps of:

18 constructing a mold of a dispenser, the mold comprising at least a sidewall, the  
19 sidewall being conical, cylindrical or polyhedral and having a proximal  
20 end and a distal end, the distal end being connected to a distal end piece,  
21 wherein the distal end piece also has a dispensing aperture;

22 acquiring semi-rigid material, the semi-rigid material being of a polymer or  
23 elemental composition;

24 liquefying the semi-rigid material;

25 pouring the liquefied semi-rigid material into the mold;

26 solidifying the liquefied semi-rigid material in the mold; and

27 extracting the solidified semi-rigid material from the mold.

28  
29 20. The method of claim 19 wherein the dispenser mold has additionally a proximal  
30 end piece connected to the proximal end of the sidewall, the proximal end piece defining  
31 a loading aperture.

1 21. The method of claim 19 or 20 wherein the liquefying step occurs through a  
2 heating or chemical process.

3  
4 22. The method of claim 19 or 20 wherein the solidifying step occurs through a  
5 cooling process.

6  
7 23. The method of claim 19 or 20 wherein the making of the epidural catheter  
8 dispenser system is automated.

9  
10 24. The method of making an epidural catheter dispensing system comprising the  
11 steps of:

12 constructing a mold of a sidewall, the sidewall being conical, cylindrical or  
13 polyhedral and having a proximal and distal end;

14 constructing a mold of a distal end piece, allowing the distal end piece to define a  
15 dispensing aperture;

16 constructing a mold of a proximal end piece, allowing the proximal end piece to  
17 define a loading aperture;

18 acquiring semi-rigid material, the semi-rigid material being of a polymer or  
19 elemental composition;

20 liquefying the semi-rigid material;

21 pouring the liquefied semi-rigid material into each mold;

22 solidifying the liquefied semi-rigid material in each mold;

23 extracting the solidified semi-rigid material from each mold;

24 joining the extracted solidified semi-rigid material shapes to each other such that

25 the sidewall connects to the proximal end piece at the proximal end and

26 the sidewall connects to the distal end piece at the distal end.

27  
28 25. The method of claim 24 wherein the making of the epidural catheter dispensing  
29 system is automated.

1 26. The method of claim 24 wherein the liquefying step occurs through a chemical or  
2 heating process.

3  
4 27. The method of claim 24 wherein the solidifying step occurs through a cooling  
5 process.

6  
7 28. The method of claim 24 wherein the joining step occurs through a chemical or  
8 mechanical process.

9  
10 29. The method of making an epidural catheter dispensing system comprising the  
11 steps of:

12 constructing a mold of a sidewall, the sidewall being conical, cylindrical or  
13 polyhedral and having a proximal and distal end and a distal end piece,  
14 allowing the distal end piece to define a dispensing aperture;

15 constructing a mold of a proximal end piece, allowing the proximal end piece to  
16 define a loading aperture;

17 acquiring semi-rigid material, the semi-rigid material being of a polymer or  
18 elemental composition;

19 liquefying the semi-rigid material;

20 pouring the liquefied semi-rigid material into each mold;

21 solidifying the liquefied semi-rigid material in each mold;

22 extracting the solidified semi-rigid material from each mold;

23 joining the extracted solidified semi-rigid material shapes to each other such that  
24 the sidewall with the distal end piece connects to the proximal end piece at  
25 the sidewall's proximal end.

26  
27 30. The method of claim 29 wherein the making of the epidural catheter dispensing  
28 system is automated.

29  
30 31. The method of claim 29 wherein the liquefying step occurs through a chemical or  
31 heating process.

1 32. The method of claim 29 wherein the solidifying step occurs through a cooling  
2 process.

3  
4 33. The method of claim 29 wherein the joining step occurs through a chemical or  
5 mechanical process.

6  
7 34. The method of making an epidural catheter dispensing system comprising the  
8 steps of:

9 constructing a mold of a sidewall, the sidewall being conical, cylindrical or  
10 polyhedral and having a proximal and distal end and proximal end piece,  
11 allowing the proximal end piece to define a loading aperture;  
12 constructing a mold a distal end piece, allowing the distal end piece to define a  
13 dispensing aperture;  
14 acquiring semi-rigid material, the semi-rigid material being of a polymer or  
15 elemental composition;  
16 liquefying the semi-rigid material;  
17 pouring the liquefied semi-rigid material into each mold;  
18 solidifying the liquefied semi-rigid material in each mold;  
19 extracting the solidified semi-rigid material from each mold;  
20 joining the extracted solidified semi-rigid material shapes to each other such that  
21 the sidewall with the proximal end piece connects to the distal end piece at  
22 the sidewall's distal end.

23  
24 35. The method of claim 34 wherein the making of the epidural catheter dispensing  
25 system is automated.

26  
27 36. The method of claim 34 wherein the liquefying step occurs through a chemical or  
28 heating process.

29  
30 37. The method of claim 34 wherein the solidifying step occurs through a cooling  
31 process.

1 38. The method of claim 34 wherein the joining step occurs through a chemical or  
2 mechanical process.

3  
4 39. The method of using an epidural catheter dispenser system to dispense an epidural  
5 catheter in an epidural injection procedure comprising the steps of:

6 loading the dispenser system's inner cavity with at least one catheter;  
7 extracting one end of the catheter out of the dispenser's inner cavity through a  
8 dispenser aperture in a distal end piece;  
9 inserting the extracted end of the catheter into the bore of an epidural needle;  
10 advancing the catheter from the dispenser's inner cavity through the bore of an  
11 epidural needle; and  
12 pulling the epidural needle over the entire length of the catheter as the catheter is  
13 simultaneously being extracted from the dispenser's inner cavity,  
14 wherein the epidural catheter dispensing system comprises:

15 at least one sidewall and having a proximal end and a distal end, the distal  
16 end being connected to a distal end piece, thereby defining an inner  
17 cavity;

18 wherein the proximal end defines a loading aperture such that a catheter  
19 may be loaded or adjusted into the inner cavity through the loading  
20 aperture; and

21 wherein the distal end piece defines a dispensing aperture such that a  
22 loaded catheter in the inner cavity can be extracted from the inner  
23 cavity through the dispensing aperture.

24  
25 40. The method of claim 39 wherein the epidural catheter dispenser system further  
26 comprises a proximal end piece connected to the proximal end of the sidewall, thereby  
27 further defining an inner cavity,

28 and wherein the proximal end piece defines a loading aperture such that a catheter  
29 may be loaded or adjusted into the inner cavity through the loading  
30 aperture.

- 1 41. The method of claim 39 or 40 wherein the loading step is performed manually or  
2 mechanically.  
3
- 4 42. The method of claim 39 or 40 wherein the loading step is automated.  
5
- 6 43. The method of claim 39 or 40 wherein the extracting step is performed manually  
7 or mechanically.  
8
- 9 44. The method of claim 39 or 40 wherein the extracting step is automated.  
10
- 11 45. The method of claim 39 or 40 wherein the inserting step is performed with either  
12 hand of a medical practitioner.  
13
- 14 46. The method of claim 39 or 40 wherein the inserting step is performed with both  
15 hands of a medical practitioner.  
16
- 17 47. The method of claim 39 or 40 wherein the advancing step is performed with either  
18 hand of a medical practitioner.  
19
- 20 48. The method of claim 39 or 40 wherein the inserting step is performed with both  
21 hands of a medical practitioner.  
22
- 23 49. The method of claim 39 or 40 wherein the pulling step is performed with either  
24 hand of a medical practitioner.  
25
- 26 50. The method of claim 39 or 40 wherein the pulling step is performed with both  
27 hands of a medical practitioner.